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M.D. Erlanger 3

IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

INVENTOR Michael David Erlanger

CASE 3

TITLE A Data Processing System For  
Providing An Efficient Market  
For Loans And Lines of Credit

"Express Mail" mailing label number EJ648075769US;  
Date of Deposit: August 7, 1999.

I hereby certify that this application is being deposited with the  
United States Postal Service "Express Mail Post Office to  
Addressee" service under 37 CFR 1.10 on the date indicated  
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Assistant Commissioner of Patents, Washington, D.C. 20231".  
Jason Paul DeMont

*Jason Paul DeMont*

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

Enclosed are the following papers relating to the above-named application for patent:

1. Transmittal Letter (3x)
2. Specification — 34 Pages
3. Declaration and Power of Attorney — 2 Pages
4. Verified Statement of Small Entity Status — 1 Page
5. Informal Drawings — 5 Sheets

CLAIMS AS FILED				
	NO. FILED	NO. EXTRA	RATE	CALCULATIONS
Total Claims	38 - 20 =	18	x \$9 =	162
Independent Claims	8 - 3 =	5	x \$39 =	195
Multiple Dependent Claim(s), if applicable			x \$130 =	0
Basic Fee				\$380
			TOTAL FEE:	\$737

**Applicant is a Small Entity.** Please file the application and charge **DeMont & Breyer, L.L.C. Deposit Account No. 50-0776** the amount of \$737, to cover the filing fee. Duplicate copies of this letter are enclosed. In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Deposit Account No. 50-0776** as required to correct the error.

Please address all correspondence to **Jason Paul DeMont, DeMont & Breyer, LLC, 244 English Place, Basking Ridge, New Jersey 07920**. Telephone calls should be made to me at Area Code (908) 903-1255.

Respectfully,

*Jason Paul DeMont*

Jason Paul DeMont  
Reg. No. 35,793  
Attorney for Applicant

Date: August 7, 1999

**IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE**

**VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) & 1.27(b)) -- INDEPENDENT INVENTOR**

Applicant: **Michael David Erlanger**

Title: **A Data Processing System For Providing An Efficient Market For Loans And  
Lines Of Credit**

Serial No.: **Not Yet Assigned**

Filing Date: **Not Yet Assigned**

As the below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in the specification filed herewith with title as listed above.

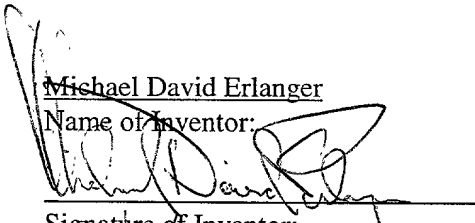
I have not yet assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person, concern or organization.

I acknowledge the duty to file in this application notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Michael David Erlanger

Name of Inventor:

  
Signature of Inventor:

7/29/99  
Date:

## **A DATA PROCESSING SYSTEM FOR PROVIDING AN EFFICIENT MARKET FOR LOANS AND LINES OF CREDIT**

### **Cross-Reference to Related Applications**

This application is a continuation-in-part of, and claims the benefit of:

5 (1) U.S. Patent Application Serial No. 09/178,400, filed October 24, 1998, entitled "A Data Processing System for Providing an Efficient Market for Loans and Lines of Credit," which is incorporated by reference, and

(2) U.S. Patent Application Serial No. 09/296,573, filed April 22, 1999, entitled "A Data Processing System for Providing an Efficient Market for Insurance and Reinsurance," which is also  
10 incorporated by reference.

### **Field of the Invention**

The present invention relates to electronic commerce in general, and, more particularly, to a data processing system that provides an efficient market for: (1) the provision of loans and lines of credit between lenders and those seeking loans and lines of credit (the "primary" or "retail" market),  
15 and (2) the trading of existing loans between loan pool traders (the "secondary" or "wholesale" market).

### **Background of the Invention**

As anyone who has ever sought a loan or a line of credit knows (hereinafter a "loan seeker"), it can be a challenge to find a lender who is willing to offer a loan or line of credit at a reasonable  
20 interest rate and on reasonable terms. Although the verity of this statement is clear for those with poor credit histories and little collateral, it is also true for those with excellent credit histories and substantial assets. For example, although many lenders might endeavor to provide some types of loans and lines of credit, few lenders provide more than a small subset of all of the types of loans and lines of credit offered by all of the lenders. One lender might offer only 30-year adjustable-rate home  
25 mortgage loans for under \$300,000 while another only offers 15-year fixed-rate home mortgage loans for over \$70,000. Therefore, even a creditworthy loan seeker might waste his or her time approaching lenders who do not offer the type of loan or line of credit he or she desires.

Furthermore, even if a creditworthy loan seeker finds a lender who does offer the type of loan or line of credit he or she desires, the loan seeker is unlikely to know if that lender is offering a

competitive interest rate and competitive terms. In general, there are three ways that a loan seeker can remedy this.

First, the loan seeker can contact (*e.g.*, in person, on the telephone, *etc.*) numerous lenders and inquire into their interest rates and terms for a particular type of loan. In fact, many people do precisely this when seeking a home mortgage loan because minor differences in interest rates and terms are well-known to result in substantial differences in monthly payments. Although it clearly pays to shop around, even the most stalwart are unlikely to contact more than a dozen lenders because of the time and effort involved.

Second, the loan seeker can consult newspapers and other periodicals that publish interest rates and terms for a variety of lenders. Such listing are, however, unlikely to be comprehensive and are likely to be out-of-date, particularly in times when interest rates are changing rapidly. One factor that accelerates the perishability of rates in newspapers and periodicals concerns lenders who discover that their published rates and terms are not competitive. Typically, those lenders immediately change their rates and terms, but because of the latency in publishing and disseminating newspapers and periodicals those changes are not immediately well-known. Although a loan seeker can consult published resources that do not have a printing latency (*e.g.*, the Internet sites of lenders or mortgage brokers, *etc.*), those rates are often misleading because they apply only to the most creditworthy.

Third, the loan seeker can contact an "independent" loan broker who represents a plurality of lenders. The independent loan broker is not, however, obligated or motivated to provide the loan seeker with the least expensive loan or line of credit at the best terms, but rather the loan or line of credit that garners the loan broker the largest commission for the least cost. In other words, because the loan broker does not have a fiduciary duty to the loan seeker, and, therefore is not legally (or financially) motivated to find the loan seeker the least expensive loan or line of credit at the best terms, the loan seeker might be disadvantaged by using a loan broker rather than using a lender directly.

Regardless, when a loan seeker has satisfied himself or herself that he or she has found a lender who offers the desired type of loan or line of credit at a competitive interest rate and at reasonable terms, the loan seeker must thereafter expend an indeterminate amount of time and energy to learn if he or she qualifies for a loan or line of credit from that lender. And although a loan seeker might satisfy himself or herself that he or she has located a lender with the best interest rate and terms, that does not mean that he or she has, in fact, done so. There could be other lenders, unknown to the loan seeker, who offer better rates and terms.

Furthermore, the lender might decide that the loan seeker does not qualify for the desired loan or line of credit, or that the loan seeker, because of credit problems or little collateral, does not qualify for the best rates and terms, which are what brought the loan seeker to that lender in the first place. In either case, the loan seeker might have wasted his or her time in approaching the lender or might not receive the interest rate and terms that were anticipated.

The end result is that, in today's marketplace, it can be difficult for those seeking a loan or a line of credit to find a lender that is willing to offer the type of loan or line of credit that the loan seeker desires at a competitive interest rate and terms.

Perhaps surprisingly, it is even *more* difficult for each lender to find a satisfactory number of loan seekers who are interested in and qualify for the particular lender's loans and lines of credit. In fact, some lenders spend tens of millions of dollars per year on advertising to entice potential borrowers to their door only to learn that well more than half do not qualify for any type of loan or line of credit under the lender's lending criteria. This is extremely inefficient and problematic for lenders because the money spent on advertising, 800-numbers, application takers and reviewers must be recouped from the earnings of those financial products that are, in fact, provided to loan seekers who do qualify and ultimately close a loan or line of credit. In other words, a portion of the money (*e.g.*, application fees, points, interest, *etc.*) paid by those loan seekers who do close loans and lines of credit goes to pay for the lender's costs in advertising and culling out the uncreditworthy. Therefore, a lender could offer creditworthy loan seekers lower fees and interest rates if the lender could forego advertising and had only creditworthy loan seekers knocking on its door.

In summary, not only do loan seekers have difficulty locating a lender that offers the type of loan or line of credit sought at competitive rates and terms, but it is also difficult for lenders to find large numbers of loan seekers who are interested in, and qualify for, the lender's offerings, without having to spend time and money on advertising and culling out the unqualified.

Therefore, the need exists for a mechanism that enables a loan seeker to quickly and easily find a lender that offers the type of loan or line of credit that he or she desires at the best possible interest rate and terms and that also provides lenders with large numbers of creditworthy loan seekers at a reasonable cost.

### **Summary of the Invention**

The present invention is a data processing system that provides an efficient market for: (1) the provision of loans and lines of credit from lenders to those seeking loans and lines of credit (the "primary" or "retail" market), and (2) the trading of existing loans between loan pool traders (in the

"secondary" or "wholesale" market). In particular, the data processing system provides an efficient market that not only invites lenders, loan seekers, and loan pool traders to patronize the system, but that induces them to patronize it as well.

The inducement is manifested in several ways. They include, but are not limited to:

For loan seekers:

- the data processing system provides a loan seeker with a single "one-stop-shopping" source that matches the loan seeker to a lender who offers the type of loan or line of credit sought;
- the data processing system matches a loan seeker to only those lenders whose lending criteria are satisfied by the loan seeker's loan solicitation; and
- the data processing system *guarantees* a loan seeker that he or she is being offered *the best interest rate or the best terms or both* available from those lenders who patronize the system (of those lenders who deem the loan seeker creditworthy and who offer the type of loan or line of credit sought).

For lenders:

- the data processing system provides those lenders *who offer competitive rates or terms or both* with a large number of loan seekers who the lender deems creditworthy at a lower cost than in the prior art, which lowers the lender's cost of doing business that, in turn, enables the lender to offer even better rates and terms;
- the data processing system provides those lenders *who offer competitive rates or terms or both* with statistics regarding the market in loans and lines of credit, which can be used by the lenders to: (1) determine which types of loans and lines of credit they should offer and at what interest rates and terms, (2) arbitrage those lenders who do not have access to the statistics, and (3) cost/value the loans in their portfolio, which facilitates the sale of those loans, which, in turn, increases the lenders' liquidity, reduces their risk, and lowers their cost of doing business, and (4) cost/value the loans of other lenders being offered for sale, which facilitates the purchase of those loans;
- the data processing system provides those lenders *who offer competitive rates or terms or both* with an efficient market for the purchase and sale of the servicing of loans (*e.g.*, providing payment collection and other administrative overhead, *etc.*); and
- the data processing system provides *every* lender with the capability get a loan for its customers when the lender itself does not offer the type of loan sought (or does offer the

type of loan sought but not at a competitive interest rate or terms) by enabling the lender to act as an application processor for its customers, and thereby earn a fee by acting as an application processor.

For loan pool traders:

- the data processing system provides loan pool traders with an efficient market for buying and selling individual loans and pools of heterogeneous loans;
- the data processing system provides loan pool traders with an efficient market for buying and selling individual loans and pools of loans at prices based on the closing criteria of the loans;
- the data processing system provides loan pool traders with statistics regarding the market in pools of loans, which can be used by the loan pool traders to: (1) assess the value of an individual loan, (2) assess the value of a pool of loans, (3) determine which types of loans they desire to buy and sell, and (4); arbitrage those loan pool traders who do not have access to the statistics;
- the data processing system provides loan pool traders with an efficient market for the purchase and sale of the servicing of pools of loans (*e.g.*, providing payment collection and other administrative overhead, *etc.*).

These inducements are possible because the present invention recognizes that the costs of doing business for lenders and loan pool traders and the interest rates and fees to loan seekers are unnecessarily high because an efficient market for loans and lines of credit does not exist. Furthermore, the present invention recognizes that if a highly efficient market for loans and lines of credit did exist, the cost of doing business for lenders and loan pool traders could decrease, the interest rates and fees to loan seekers could decrease, and the provider of the market could also make a profit. Furthermore, the existence of an efficient market could even provide lenders with a larger profit than they make now if operating costs drop more quickly than interest rates drop. In other words, the intermediation of an *efficient* market between lenders, loan seekers and loan pool traders can actually make the cost of loans and lines of credit to loan seekers go down, the cost of doing business to lenders and loan pool traders go down and the profits to lenders and loan pool traders go up. Therefore, a data processing system in accordance with the illustrative embodiment endeavors to provide a market for the provision of loans and lines of credit that is highly efficient.

It is also recognized that the efficiency of the market for loans and lines of credit (the primary or retail market) is affected by the efficiency of the market in pools of loans (the secondary or

wholesale market) and *vice versa*. Therefore, the illustrative embodiment of the present invention seeks to improve the efficiency of both the primary market and the secondary market so that, to the extent the efficiency in one enhances the efficiency in the other, a synergy of efficiency between the two markets is affected. For example, to affect this synergy, fees incurred by a patron to the owner/operator of the data processing system for lending through the primary market might be credited against the fees incurred by the patron to the owner/operator of the data processing system for trading through the secondary market (and *vice versa*).

The present invention also recognizes that merely providing a market and inviting lenders, loan seekers, and loan pool traders to patronize it is, in and of itself, insufficient to yield an *efficient* market. The prerequisite to an efficient market is volume — in numbers of lenders, loan seekers, loan pool traders, and dollars transacted — and the prerequisite to volume is an efficient market. This is the *Catch-22* that has, until now, stemmed the development of an efficient market in loans and lines of credit.

To overcome this predicament, some data processing systems in accordance with the present invention incorporate one or more mechanisms that prime an efficient market and that reinforce the efficiency of the market. Three illustrative mechanisms are:

First, the *pro rata* fees incurred with respect to transactions associated with a patron for patronizing the system might decrease as the total fees incurred by transactions associated with that patron increase. For example, although the owner/operator of the data processing system might receive a fee from a lender when the lender closes a loan through the system, a portion of the fee might be remitted back to the lender for having closed a large volume of loans through the system in a given interval. Advantageously, the fees from all types of loans and lines of credit are aggregated for determining the amount of the remittance. Such a remittance schedule could be:

Total Fees Incurred With Respect To Transactions Associated With Patron In The Last Month	% of Total Fees Incurred To Be Remitted Back To Lender
\$0 to \$250,000	0%
\$250,001 to \$500,000	5%
\$500,001 to \$1,000,000	15%
\$1,000,001 to \$5,000,000	35%
\$5,000,001 to \$100,000,000	50%

**Table 1 — Illustrative Remittance Schedule**



Therefore, this mechanism encourages lenders to patronize the system with larger, rather than smaller, volumes, which is accomplished by endeavoring to offer the most varieties of loans and lines of credit at the lowest interest rates and at the best possible terms.

Second, some or all of the parties who patronize the system might receive statistics compiled by the system on the condition of the market (*i.e.*, a service analogous to the Bloomberg News Service or a stock ticker, *etc.*) in loans and lines of credit. Although these statistics cost the owner/operator of the data processing system little to compile, their value is so great that lenders and loan pool traders who do not have access to the statistics will have difficulty, in the long run, in competing with those who do. An analogy makes the situation clear; a trader of stocks without access to the stock ticker and current bid and offer quotations can be arbitrated by a trader who does.

Furthermore, although some or all of the statistics might be sold for cash, the statistics are advantageously given for free, or sold at a subsidized price, to those patrons of the system who actually transact business through the system. Advantageously, price for the statistics decreases as the measure of fees incurred by transactions associated with a patron increases. For the purposes of this specification, the provision of statistics for free, or at a subsidized price, to those patrons of the system who close loans or trade loans or both through the system is called "netbacking."

An illustrative netbacking schedule could be:

Total Fees Incurred With Respect To Transactions Associated With Patron In The Last Month	Cost of Statistics to Patron
\$0 to \$250,000	\$1,000,000
\$250,001 to \$500,000	\$750,000
\$500,001 to \$1,000,000	\$250,000
\$1,000,001 to \$5,000,000	\$100,000
> \$5,000,000	\$0 (free)

**Table 2 — Illustrative Netbacking Schedule**

Netbacking also encourages lenders to patronize the system with larger, rather than smaller, volumes, which is accomplished by endeavoring to offer the most varieties of loans and lines of credit at the lowest interest rates and at the best possible terms.

Third, a portion of the fees incurred with respect to transactions associated with a lender for lending through the data processing system might be credited against the fees incurred with respect to

transactions associated with the lender for trading loans through the system (as either a buyer or a seller or both). For example, many lenders desire to sell a loan immediately after they have made it. It is, therefore, possible that a lender will lend to a loan seeker through the system, and incur a fee for doing so, and then sell that loan through the system and incur a second fee. The illustrative embodiment of the present invention credits, according to some credit schedule, a portion of the fees associated with a patron for lending through the system against the fees incurred for trading a loan through the system. Such a credit schedule could be:

<b>Total Fees Incurred With Respect To Transactions In Primary Market With Respect To Patron In The Last Month</b>	<b>% of Total Fees Incurred With Respect To Transactions In Primary Market To Be Credited Against Total Fees Incurred With Respect To Transactions In Secondary Market</b>
\$0 to \$250,000	0%
\$250,001 to \$500,000	5%
\$500,001 to \$1,000,000	10%
\$1,000,001 to \$5,000,000	20%
> \$5,000,000	35%

**Table 3 — Illustrative Credit Schedule**

An alternative embodiment of the present invention works in reverse and credits, according to some schedule, a portion of the fees incurred with respect to transactions associated with a patron who trades loans through the system against the fees incurred for lending through the system. In yet another embodiment of the present invention the fees incurred in trading loans through the system are credited against the fees for lending through the system *and* the fees incurred for lending through the system are credited against the fees for trading loans through the system.

Therefore, this mechanism also encourages lenders to patronize the system with larger, rather than smaller, volumes, which is accomplished by endeavoring to offer the most varieties of loans and lines of credit at the lowest interest rates and at the best possible terms, and by patronizing the secondary market in loans with the best possible bids and offers.

The end result is that in order to compete in the consumer finance market lenders and loan pool traders must have access to the statistics, which encourages them to patronize the system with competitive offerings to get access to the statistics, which increases the competitiveness of the market, increases its volume, and promotes its efficiency. Therefore, some embodiments of the present invention prime the market for efficiency and incorporate a positive feedback mechanism that

maintains that efficiency. It is understood, however, that the priming of embodiments of the present invention might be assisted by advertising and other marketing techniques.

An embodiment of the present invention comprises: receiving at a data processing system a lending criteria from each of a plurality of lenders; compiling a first set of statistics in the data processing system based on the lending criteria from each of the plurality of lenders; and outputting from the data processing system the first set of statistics to a first lender at a price that is based on a measure of fees incurred with respect to the first lender.

### **Brief Description of the Drawings**

FIG. 1 depicts a schematic diagram of the illustrative embodiment of the present invention.

FIG. 2 depicts a block diagram of data processing system 101 depicted in FIG. 1.

FIG. 3 depicts the relationship of FIGs. 4 and 5.

FIG. 4 depicts a first portion of a flowchart of the operation of data processing system 101 in accordance with the illustrative embodiment.

FIG. 5 depicts a second portion of a flowchart of the operation of data processing system 101 in accordance with the illustrative embodiment.

### **Detailed Description**

FIG. 1 depicts a schematic diagram of the illustrative embodiment of the present invention in which data processing system 101 provides a market for: (1) the provision of loans and lines of credit from a plurality of lenders (*e.g.*, lenders 102-1 through 102-*i*) to a plurality of loan seekers (*e.g.*, loan seekers 103-1 through 103-*j*), and (2) the trading of loans between loan pool traders (*e.g.*, loan pool traders 107-1 through 107-*k*).

For the purposes of this specification, a "lender" is defined as an entity that provides, or endeavors to provide, a loan or line of credit to a loan seeker, and a "loan seeker" is defined as an entity that seeks a loan or line of credit. Furthermore, a "loan" is defined as something (*e.g.*, money, stock, personalty, realty, *etc.*) that is lent for the temporary use by a loan seeker, and is to be contrasted with a "line of credit" which is defined as an amount of credit extended to a loan seeker, all or a portion of which can ripen into a loan at the loan seeker's discretion.

In accordance with the illustrative embodiment of the present invention, one or more application processors (*e.g.*, application processor 104) and one or more loan processors (*e.g.*, loan processor 105) are advantageously engaged to facilitate the provision of loans and lines of credit between lenders and loan seekers.

For the purposes of this specification, an "application processor" is defined as an entity that prepares a loan solicitation. Although a sophisticated loan seeker can act as his or her own application processor, it might be desirable for a less sophisticated loan seeker to have another entity act as an application processor.

For the purposes of this specification, a "loan solicitation" is defined as an inquiry or an application for a loan or line of credit. The types and nature of the data contained in a loan solicitation are discussed below.

For the purposes of this specification, a "loan processor" is defined as an entity that evaluates the compliance of a loan solicitation against a lending criteria. Although lenders often act as their own loan processors, a lender might employ another entity to act as a loan processor.

For the purposes of this specification, a "loan pool trader" is defined as an entity that engages in the purchase or sale of loans or pools of loans. Furthermore, because many entities in the loan and credit industry are large and sophisticated, it is common for a single entity to perform different roles at different times or with respect to different transactions. Therefore, for the purposes of this specification, a single entity can be:

- (i) a lender, or
- (ii) a loan pool trader, or
- (iii) an application processor, or
- (iv) a loan processor, or
- (v) a loan seeker, or
- (vi) any combination of i, ii, iii, iv, and v.

The heart of the illustrative embodiment is data processing system 101, which receives data from each lender, loan seeker, application processor, loan processor, and loan pool trader, and endeavors to match lenders with appropriate loan seekers and to facilitate the provision of loans and lines of credit. Each lender, loan seeker, application processor, loan processor, and loan pool trader is advantageously capable of providing data to and receiving data from data processing system 101 via a data network (*e.g.*, the Internet, *etc.*) or via a telephone network (*e.g.*, the Public Switched Telephone Network, *etc.*) or both.

FIG. 2 depicts an illustrative embodiment of data processing system 101, which comprises: computer 201, local output device 202, data storage device 203, telephone center 204, telephone network interface 205, and data network interface 206. Computer 201 is advantageously a general-purpose computer as is well-known in the art that is capable of:

- executing one or more programs that are stored in data storage device 203;
- storing data in and retrieving data from data storage device 203;
- outputting data to local output device 202;
- receiving data from and outputting data to telephone center 204; and
- receiving data from and outputting data to data network interface 206.

Local output device 203 is a device (*e.g.*, a printer, a tape drive, removable hard disk, *etc.*) from which data from data processing system 101 can be output for processing or delivery to lenders, loan seekers, application processors, loan processors, loan pool traders, and statistics subscribers.

Data storage device 203 is advantageously a non-volatile memory (*e.g.*, a hard disk, a tape drive, an optical device, *etc.*) for storing the program code executed by computer 201 and the data input into and generated by the illustrative embodiment.

Data network interface 206 enables lenders, loan seekers, application processors, loan processors, loan pool traders, and statistics subscribers to communicate with data processing system 101 via a data network, such as the Internet. For example, data processing system 101 can be accessed via the World Wide Web.

Alternatively, lenders, loan seekers, application processors, loan processors, loan pool traders, and statistics subscribers can communicate with data processing system 101 via telephone, such as through a toll-free "800" number. To this end, telephone network interface 205 advantageously comprises one or more telephones that are capable of receiving calls from and placing calls to lenders, loan seekers, application processors, loan processors, loan pool traders, and statistics subscribers. Telephone network interface 205 can further comprise an automatic call distribution system, in well-known fashion, for routing incoming calls to the various telephones. Furthermore, telephone network interface 205 is advantageously capable of receiving information from lenders, loan seekers, application processors, loan processors, loan pool traders, and statistics subscribers via a touch-tone interface wherein the parties input information to the system by pushing the buttons on their telephones in response to questions from an automated operator.

Telephone center 204 advantageously comprises one or more computer terminals that are operated by the personnel associated with telephone network interface 205 such that an operator (either human or automated) can shuttle data between computer 201 and a lender, loan seeker, application processor, loan processor, loan pool trader, or statistics subscriber who is in contact with data processing system 101 via telephone network interface 205.

It will be clear to those skilled in the art how to make and use computer 201, local output device 202, data storage device 203, telephone center 204, telephone network interface 205, and data network interface 206. Although data processing system 101 is shown as depicting only one computer and one storage device, it will be clear to those skilled in the art that a data processing system in accordance with the present invention can also comprise one or more computers and one or more storage devices.

FIG. 3 depicts the relationship of FIGs. 4 and 5, and FIG. 4 depicts a first portion of a flowchart of the operation of data processing system 101 in accordance with the illustrative embodiment.

At step 301, a lending criteria is received at data processing system 101 from each of a plurality of lenders. Each lending criteria can be received at data processing system 101 via a data network and data network interface 206 or via a telephone network and telephone network interface 205.

For the purposes of this specification, a "lending criteria" is defined as an indicium of:

- i. the types of loans and lines of credit that a lender is endeavoring to provide; or
- ii. one or more minimum standards that a loan seeker must satisfy before the loan seeker is matched to the lender by data processing system 101; or
- iii. the interest rate, fees, and terms for each type of loan or line of credit that the lender is endeavoring to provide; or
- iv. any combination of i, ii, and iii.

For example, Lender A can input into data processing system 101 a lending criteria that indicates that it is endeavoring to provide: (1) home mortgage loans, (2) auto loans, (3) personal loans, (4) small business loans, and (5) accounts receivable loans, and the standards, interest rates, fees and terms by which it endeavors to make such loans. Although a lending criteria can be quite complicated and is typically different for each lender, Table 4 provides an example of a lending criteria that one lender, Lender A, might input into data processing system 101 for 30-year fixed-rate home mortgage loans.

Amount of Loan	Loan seeker's Income	Location of Home (by Postal ZIP Code)	Interest Rate
\$25,000 - \$50,000	> \$28,000 / year	077xx, 078xx, 079xx	7.15%
\$50,001 - \$128,000	> \$46,500 / year	0770x, 078xx, 0792x	7.15%
\$50,001 - \$128,000	> \$66,000 / year	0770x, 078xx, 0792x	7.05%

\$128,001 - \$217,000	> \$75,000 / year	07701, 078xx, 0792x	7.20%
\$217,001 - \$310,000	> \$105,000 / year	0781x, 0792x	7.35%

**Table 4** — Lending criteria for Lender A for Home Mortgage Loans

In contrast, another lender, Lender B, might input into data processing system 101 a lending criteria that indicates that it is endeavoring to provide: (1) home mortgage loans, (2) auto loans and (3) student loans, wherein the loan criterion for 30-year fixed-rate home mortgage loans is

5 summarized in Table 5.

Amount of Loan	Loan seeker's Income	Tenure at Job	Interest Rate
\$20,000 - \$40,000	> \$25,000 / year	12 months	7.10%
\$40,001 - \$108,000	> \$44,000 / year	18 months	7.15%
\$108,001 - \$165,000	> \$55,000 / year	18 months	7.25%
\$165,001 - \$200,000	> \$85,000 / year	24 months	7.30%
\$200,001 - \$250,000	> \$100,000 / year	24 months	7.35%

**Table 5** — Lending criteria for Lender B for Home Mortgage Loans

It should be noted that not only are the standards for home mortgage loans for Lender A different than the standards for Lender B, but that the character of the standards are also different. For example, although both Lender A and Lender B use the amount of the loan and the loan seeker's income as standards, only Lender A uses the geographic location of the home as a standard. In contrast, only Lender B uses the loan seeker's tenure at his or her job as a standard.

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Therefore, it will be clear to those skilled in the art that the sample lending criteria depicted in Tables 1 and 2 are simplified for pedagogical purposes and that the lending criteria used by other lenders can be significantly more complicated. Furthermore, it will be clear to those skilled in the art how to create and input a loan criterion into data processing system 101 for one or more types of loans and lines of credit and for any set of standards, interest rates, fees and terms.

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In accordance with the illustrative embodiment of the present invention, a lender can input a revised lending criteria into data processing system 101 at any time or withdraw all or a portion of a lending criteria at any time. This is to enable a lender to adjust his or her offering as its situation and market conditions change.

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The lending criteria from each of the plurality of lenders are stored in loan criterion database 251 in data storage device 203.

At step 302, data processing system 101 compiles statistics on the lending criteria received from the plurality of lenders. Such statistics might include, but are not limited to:

- the number of lenders who have lending criteria pending in data processing system 101;
- the number of lenders who are endeavoring to provide loans or lines of credit for each type of loan;
- any element of a lending criteria as a function of any other element of a lending criteria — to answer questions such as "What is the lowest interest rate cited in a loan criterion for a home mortgage loan for \$86,000 in Manhattan to a loan seeker who earns \$102,000 per year and who has been at their current job for two years?" and "What is the largest auto loan available to a loan seeker to earns \$34,000 per year?"
- the elements for any type of loan or line of credit — to answer questions such as "What are the elements considered by all lenders endeavoring to provide home mortgage loans?"

It will be clear to those skilled in the art how to compile such statistics from the lending criteria received. Advantageously, step 302 is performed each time a new loan criterion or a revised loan criterion is received by data processing system 101 or a loan criterion is withdrawn.

The statistics compiled at step 302 are stored in statistical database 253 in data storage device 203. Because the statistics stored in statistical database 253 are valuable, they can be sold or provided as described below with respect to step 312.

At step 303, a loan solicitation is received at data processing system 101 from each of one or more loan seekers. As with the loan criterion, each loan solicitation can be received at data processing system 101 via a data network and data network interface 206 or via a telephone network and telephone network interface 205. Furthermore, each loan solicitation can be a mere inquiry about the availability of a loan, its rates, fees, and terms, or it can be a contractual offer to enter into a loan or line of credit agreement.

Each loan solicitation can be received at data processing system 101 directly from a loan seeker or indirectly through an entity that acts as an application processor for the loan seeker. In either case, a record is kept in netbacking database 255 of whether an application processor is used, and if so, who the application processor is. The purpose of keeping a record of whether an application processor is used is to ensure that the application processor is compensated for his or her service, as discussed in detail below with respect to step 310.



Advantageously, each loan solicitation is received in the form of answers to a series of questions, which questions are based, at least in part, on the statistics compiled in step 302. In particular, the questions are designed to elicit answers that enable data processing system 101 to determine how well the loan seeker compares to the lending criteria from each lender. In other words, the questions are designed to provide data processing system 101 with that necessary data to enable it to match, if possible, each loan seeker to the most appropriate lender.

For example, if the two lenders, Lender A and Lender B discussed above, are the only two lenders who have input lending criteria into data processing system 101, then the two lenders, in aggregate, are endeavoring to provide the six types of loans and lines of credit shown in Table 6.

accounts receivables loans
auto loans
home mortgage loans
personal loans
small business loans
student loans

**Table 6 - Types of Loans and Lines of Credit Available**

Therefore, the first piece of data sought in a loan solicitation might be designed to identify the type of loan or line of credit that the loan seeker is seeking. For example, the first question put to a loan seeker might be "What type of loan are you interested in — an accounts receivable loan, an auto loan, a home mortgage loan, a personal loan, a small business loan, or a student loan?"

The subsequent data sought in the loan solicitation advantageously enables data processing system 101 to determine whether the loan seeker satisfies the lending criteria for the type of loan or line of credit sought, and if multiple lenders endeavor to provide loans and lines of credit of that type, who the appropriate lender is.

For example, if the loan solicitation indicates that the loan seeker is interested in a "30-year, fixed-rate home mortgage loan," then data processing system 101 must ascertain whether the loan seeker is qualified for such a loan from either Lender A or Lender B or both (because both Lender A and Lender B endeavor to provide such loans).

To this end, and given the lending criteria in Tables 4 and 5, above, the following questions might be put to the loan seeker:

- 1) How much money do you want to borrow?
- 2) What is your income?
- 3) How long have you been at your current job?
- 4) What is the Postal ZIP Code for the home you are purchasing?

5 Although question #3 is only relevant to the lending criteria for Lender B and question #4 is only relevant to the lending criteria for Lender A, both questions are advantageously asked and their answers received and stored in loan solicitation database 252.

To reiterate, the data sought in a loan solicitation is designed to enable data processing system 101 to match, if possible, each loan solicitation from a loan seeker to the most appropriate  
10 lender.

At step 304, data processing system 101 compiles statistics on the loan solicitations received. Such statistics might include, but are not limited to:

- the number of loan solicitations for each type of loan or line of credit received in a given interval;
- 15 • the total dollar volume of loan solicitations received for each type of loan; and
- any element of any loan solicitation as a function of any other element — to answer questions such as "What is the total dollar volume of the loan solicitations received in the last 6 days from loan seekers seeking home mortgage loans for \$200,000 or more in New Jersey?"

20 It will be clear to those skilled in the art how to compile such statistics. Advantageously, step 304 is performed each time a new loan solicitation is received by data processing system 101 or a loan solicitation is amended or withdrawn.

The statistics compiled at step 304 are stored in statistical database 253 in data storage device 203. Because the statistics stored in statistical database 253 are valuable, they can be sold or provided  
25 as described below with respect to step 312.

At step 305, data processing system 101 compares each loan solicitation received in step 303 to the lending criteria stored in lending criteria database 251 to identify, if possible,

- (1) a selected lender, and
- (2) a prioritized list of alternative lenders, including a first alternative lender.

30 In other words, data processing system 101 endeavors to find one or more lenders who, based on the lending criteria in lending criteria database 251 are satisfied by the loan solicitation received in step 303. There are three possible outcomes of step 305:

1. The loan solicitation does not satisfy the lending criteria of any lender;
2. The loan solicitation satisfies the lending criteria of only one lender; or
3. The loan solicitation satisfies the lending criteria of two or more lenders.

Depending on the outcome of step 305, data processing system 101 then, at step 306, advantageously outputs:

- i. (to the selected lender) an indicium of the identity of the loan seeker; or
- ii. (to the selected lender) the loan solicitation to the selected lender; or
- iii. (to the loan seeker) an indicium of the identity of the selected lender; or
- iv. (to the loan seeker) an indicia of the interest rate, fees, and terms cited in the lending criteria satisfied by the loan criteria from the selected lender; or
- v. (to the loan seeker) an indicium of the identity of the alternative lenders; or
- vi. (to the loan seeker) an indicia of the interest rate, fees, and terms cited in the lending criteria satisfied by the loan criteria from each of the alternative lenders; or
- vii. any combination of i, ii, iii, iv, v, and vi.

**Case #1** — In the first case, when the loan solicitation does not satisfy the lending criteria of any lender, data processing system 101 informs the loan seeker of such (or the application processor if one is used). As an example of the first case, assume that a loan seeker, Loan Seeker #1, provides the loan solicitation depicted in Table 7.

<b>Type of Loan or Line of Credit Sought</b>	Home Mortgage Loan
<b>Amount of Loan</b>	\$211,000
<b>Income</b>	\$19,500
<b>Tenure at Job</b>	2 months
<b>Postal ZIP Code for Home</b>	07920

**Table 7 — Loan Solicitation from Loan Seeker #1**

By comparing the data in Table 7 to the lending criteria in Tables 4 and 5, it can be readily observed that Loan Seeker #1 does not satisfy the lending criteria of either Lender A or Lender B. Therefore, data processing system 101 informs the loan seeker of such and advantageously also informs the loan seeker why his or her loan solicitation did not satisfy any lender's lending criteria.

**Case #2** — In the second case, when the loan solicitation satisfies the lending criteria of only one lender, that lender is designated as the "selected lender" by data processing system 101.

The selected lender and the loan seeker then interact, either through data processing system 101 or not, as necessary or desirable, to close the loan or line of credit. If the selected lender desires to engage the services of a loan processor (*e.g.*, loan processor 105) to facilitate the closing, that fact, and the identity of the loan processor is conveyed to data processing system 101 and stored in netbacking database 255. The purpose of keeping a record of whether a loan processor is used is to ensure that the loan processor is compensated for his or her service. This is discussed in detail below with respect to step 310.

As an example of the second case, assume that a loan seeker, Loan Seeker #2, provides the loan solicitation depicted in Table 8.

<b>Type of Loan or Line of Credit Sought</b>	Home Mortgage Loan
<b>Amount of Loan</b>	\$211,000
<b>Income</b>	\$95,000 / year
<b>Tenure at Job</b>	60 months
<b>Postal ZIP Code for Home</b>	07920

**Table 8 — Loan Solicitation from Loan Seeker #2**

By comparing the data in Table 8 to the lending criteria in Tables 4 and 5, it can be seen that Loan Seeker #2 satisfies the lending criteria of Lender A for a loan of \$211,000 (which is quoted at 7.25%). Furthermore, it can be seen that Loan Seeker #2 does not satisfy the lending criteria of Lender B for a loan of \$211,000 because Loan Seeker #2 has insufficient income (\$95,000 is below the \$100,000 per year required). Therefore, the loan solicitation only satisfies the lending criteria from Lender A and, therefore, data processing system 101 identifies Lender A as the selected lender.

Whether the selected lender and loan solicitor communicate solely through data processing system 101 to close the loan or line of credit, data processing system 101 advantageously tracks the progress of each application, all lender and loan seeker communications, document processing steps, closing rates as a percentage of loan solicitations referred and the resulting billings and receipts of the parties. This is useful for, among other things, ensuring that parties do not receive the benefit of data processing system 101 without paying for it.

Furthermore, data processing system 101 maintains a permanent record of the closing criteria for each loan and line of credit in closing criteria database 257. For the purposes of this specification, the term "closing criteria" is defined as those attributes of the loan solicitation and lending criteria for

the loan or line of credit that might be useful at a later time to cost/value that loan or line of credit. The purpose of maintaining the closing criteria for each loan and line of credit is discussed below with respect steps 313 to 315.

**Case #3** — In the third case, when the loan solicitation satisfies the lending criteria of two or more lenders, data processing system 101 identifies one of those lenders whose lending criteria are satisfied as the selected lender and the remaining lenders as alternative lenders. Of the lenders whose lending criteria are satisfied, that lender that cites the lowest interest rate and fees and the best terms for the loan or line of credit is identified as the selected lender.

If there are more than two lenders whose lending criteria are satisfied by the loan solicitation and that offer the same interest rate, fees, and terms for a given loan or line of credit, data processing system 101 selects the chronologically first to offer the interest rate, fees, and terms as the selected lender. This convention further induces lenders to lower their interest rates and fees quickly and to improve their terms, which contributes to the efficiency of the market.

If there are two or more lenders whose lending criteria are satisfied by the loan solicitation but that offer a different, but clearly good, combination of interest rates, fees, and terms for a given loan or line of credit, data processing system 101 can select them both as co-selected lenders. In this case, the loan seeker might be given the option of which he or she desires to deal with.

The first alternative lender is that lender of all of the lenders whose lending criteria are satisfied by the loan solicitation that offers less advantageous interest rates and fees or terms for the loan or line of credit. The second and subsequent alternative lenders are identified similarly.

The utility of identifying alternative lenders arises when, for any reason, the selected lender is unable or unwilling to provide the loan or line of credit despite the loan criterion to the contrary. If the selected lender fails to provide a loan or line of credit, then the selected lender can be punished by a fine to either the owner of data processing system 101 or to the loan seeker or both. In the event that a selected lender does not provide the loan or line of credit, it is stricken as the selected lender and the first alternative lender becomes identified as the selected lender. The newly identified selected lender and the loan seeker then endeavor to close the loan or line of credit.

As an example of the third case, assume that a loan seeker, Loan Seeker #3, provides the loan solicitation depicted in Table 9.

<b>Type of Loan or Line of Credit Sought</b>	Home Mortgage Loan
<b>Amount of Loan</b>	\$135,000

<b>Income</b>	\$80,000 / year
<b>Tenure at Job</b>	30 months
<b>Postal ZIP Code for Home</b>	07701

**Table 9** — Loan Solicitation from Loan Seeker #2

By comparing the data in Table 9 to the lending criteria in Tables 4 and 5, it can be seen that Loan Seeker #3 satisfies the lending criteria for both Lender A and Lender B. For such a loan, Lender A quotes a 7.20% interest rate and Lender B quotes 7.25%. Therefore, because the interest rate cited by Lender A is lower than that of Lender B, data processing system 101 identifies Lender A as the selected lender and Lender B as the first alternative lender (assuming that the other fees and terms are comparable).

At step 307, data processing system 101 compiles statistics on the matching of loan solicitations to lending criteria, and of the failure to match loan solicitations to lending criteria. Such statistics might include, but are not limited to:

- the number of matches for each type of loan in a given interval;
- the total dollar volume of the matches for each type of loan; and
- any aspect of any match as a function of any other aspect — to answer questions such as "What is the average interest rate of the matches made in the last hour from auto loans in California?"

It will be clear to those skilled in the art how to compile such statistics. Advantageously, step 307 is performed each time a match is made between a loan solicitation and a loan criterion and each time there is a failure to match a loan solicitation to a loan criterion.

The statistics compiled at step 307 are stored in statistical database 253 in data storage device 203. Because the statistics stored in statistical database 253 are valuable, they can be sold or provided as described below with respect to step 312.

At step 308, data processing system 101 receives an indication of the fee incurred by each patron (*e.g.*, the selected lender, the loan seeker, *etc.*) associated with the transaction, which fee is correspondingly earning by the owner/operator of data processing system 101. Advantageously, the fee is incurred by the selected lender when the loan or credit line is closed and no fee is incurred by the loan seeker. In an alternative embodiment of the present invention, the fee is incurred by the selected lender for merely introducing the selected lender and the loan seeker in step 306. In another

alternative embodiment, the fee is incurred by the loan seeker. In yet another alternative embodiment, a fee is incurred by the selected lender and a fee is incurred by the loan seeker.

Advantageously, the fee is based on the dollar volume of the loan or line of credit, and the indication of the fee incurred is stored in earned fee database 254 in data storage device 203. The fee information is valuable because it enables data processing system 101 to determine how to distribute, remit and credit the aggregate fees and to price the statistics in statistics database 253. More is said about this in steps 309 through 312.

At step 309, data processing system 101 compiles statistics on the fees incurred, if any, from each loan seeker and lender. Such statistics might include, but are not limited to:

- the aggregate fees incurred by a given lender in a given interval;
- the aggregate fees incurred by all lenders in a given interval in which a given application processor has prepared the loan solicitation;
- the aggregate fees incurred by all lenders in a given interval in which a given loan processor has facilitated the closing of a loan or line of credit; and
- the aggregate fees incurred by a given lender in a given interval in which the lender has acted as his or her own loan processor;
- the aggregate fees incurred as a function of any aspect of any lending criteria or loan solicitation — to answer questions such as "What are the aggregate fees incurred on loan solicitations for home mortgage loans for \$200,000 or more in New Jersey in the last 28 days?"

It will be clear to those skilled in the art how to compile such statistics. Advantageously, step 309 is performed each time an indication of an incurred fee is received by data processing system 101 (step 308).

The statistics compiled at step 309 are stored in statistical database 253 in data storage device 203. Because the statistics stored in statistical database 253 are valuable, they can be sold or provided as described below with respect to step 312.

At step 310, data processing system 101 computes and outputs an indicium of the portion of the fee incurred in step 308 by:

- (1) the loan seeker;
- (2) the application processor, if one was used; and
- (3) the loan processor, if one was used.

In all cases, the remittance of some portion of the incurred fee to each of these parties is made not only to compensate the party for the services they have performed, but also to encourage and reward the parties for facilitating the closing of loans and lines of credit through data processing system 101.

With regard to the loan seeker, a portion of the fee incurred by the lender might be provided to the loan seeker based on the total dollar volume of loans or lines of credit that the loan seeker has received through data processing system 101 in a given interval. In other words, the loan seeker should be rewarded for his or her patronage of data processing system 101. The statistics compiled in step 309 are useful in determining the amount of the fee incurred by the loan seeker.

Furthermore, if the loan seeker acts as his or her own application processor, then the loan seeker lowers the cost of doing business for the lender and should be rewarded for doing so. Therefore, the remittance of a portion of the incurred fee to the loan seeker encourages the loan seeker to act as his or her own application processor.

With regard to an application processor who acts as an agent for the loan seeker (if one is engaged with regard to a particular loan or line of credit), a portion of the incurred fee is remitted back to the application processor for his or her service in assisting the loan seeker in preparing the loan solicitation. Furthermore, because the application processor and not the loan seeker might make the decision to patronize data processing system 101, the application processor is advantageously also provided an additional portion of the incurred fee as an origination fee for choosing data processing system 101. The origination fee might vary, for example, on the total dollar volume of the loans and lines of credit closed in which the application processor is involved. The statistics compiled in step 309 are useful in determining the amount of the fee incurred by the application processor.

With regard to the loan processor (if one is engaged with regard to a particular loan or line of credit), a portion of the incurred fee is remitted back to the loan processor for his or her service in facilitating the closing of the loan or line of credit. Furthermore, to encourage the loan processor to expedite the closing of the loan or line of credit involving data processing system 101, an additional portion of the incurred fee is advantageously provided to the loan processor based on the total dollar volume of the loans and lines of credit closed in which the loan processor is involved. The statistics compiled in step 309 are useful in determining the amount of the fee to be remitted to the loan processor.

As shown in FIG. 5, at step 311, data processing system 101 outputs an indicium of a portion of the fee, if any, to be remitted back to the selected lender. The purpose of remitting a portion of the fee back to the selected lender is to encourage the selected lender to:



(i) patronize data processing system 101;

(ii) offer the widest variety of loans and lines of credit at the lowest interest rates and fees and with the best terms; and

(iii) close the largest number of loans and lines of credit possible through the system.

To this end, the amount of the fee to be remitted back is advantageously dependent on: (i) the measure of fees incurred by data processing system 101 from transactions in a given interval in which the lender has provided the loans and lines of credit, and (ii) a graduated schedule (*e.g.*, Table 1 above, *etc.*). For example, if less than \$1,000,000 in fees are incurred by a given lender within the last month, then only 15% of the incurred fee is remitted back to the lender. In contrast, if more than \$5,000,000 in fees are incurred by a given lender within the last month, then 35% of the incurred fee is remitted. The statistics compiled in step 309 are useful in determining the amount of the fee to be remitted back to the selected lender.

Furthermore, at step 311, data processing system 101 outputs:

- i. an indicium of a portion of the fees incurred with respect to the primary market and with respect to each lender to be credited to each lender, which credit can be applied against the fees incurred by the lender in the secondary market;
- ii. an indicium of a portion of the fees incurred with respect to the secondary market and with respect to each lender to be credited to each lender, which credit can be applied against the fees incurred by the lender in the primary market; and
- iii. an indicium of the price to be paid by each lender and statistics subscriber for the statistics output in step 312 and an indicium of the terms and nature of the statistics output in step 312.

The purpose of crediting a portion of the fee in one market to the other is to further encourage the lender to:

(i) patronize data processing system 101;

(ii) offer the widest variety of products at the lowest interest rates and fees and with the best terms;

(iii) close the largest number of loans and lines of credit possible with the assistance of data processing system 101; and

(iv) trade loans and pools of loans through data processing system 101.

Furthermore, by changing the amount of the fees in one market that can be credited against the fees in the other, the illustrative embodiment is able to affect the efficiency of both the primary and the secondary markets.

The amount of the fee to be remitted back is also advantageously dependent on: (i) the measure of fees incurred by data processing system 101 from transactions in a given interval in which the lender has provided the loans and lines of credit, and (ii) a graduated schedule (*e.g.*, Table 3 above, *etc.*). It will be clear to those skilled in the art how to compute and output an indicium of the fee to be remitted back to each lender and how to compute and output an indicium of the fee to be credited to each lender against fees incurred for trading loans and pools of loans through data processing system 101.

At step 312, data processing system 101 outputs some or all of the statistics (regarding the primary market or the secondary market) stored in statistics database 253. It will be clear to those skilled in the art that the "statistics" provided can include raw data as well as information about the raw data. Advantageously, some parties are given the statistics in real-time, while others are given them delayed by some duration (*e.g.*, 15 minutes, 24 hours, *etc.*). Typically, the statistics in real-time will be considered more valuable than the statistics that are delayed. Furthermore, some parties might be given more statistics than others.

Although some or all of the statistics can be sold for cash to the statistics subscribers (*e.g.*, a newspaper, a financial analyst, *etc.*), the statistics are advantageously given for free or at a subsidized price to those patrons (*e.g.*, the lenders, loan seekers, loan pool traders, *etc.*) who actually close loans and lines of credit or buy or sell loans through data processing system 101. In particular, the price of the statistics for a given patron advantageously decreases as a measure of the fees incurred with respect to all transactions (in both the primary and secondary markets) associated with that patron increase. The decision whether to output statistics to a patron in real-time or not and for free or for a subsidized price is advantageously made based on the amount of fees incurred by transactions involving that patron in a given interval, which is considered one indication of how much that patron has contributed to the efficiency of the market on data processing system 101. The data stored in earned fee database 254 and netbacking database 255 are useful for this purpose.

In steps 313 through 319, data processing system 101 functions as a market for the trading of loans between loan pool traders, for which each loan pool trader incurs a fee, which is paid to the owner/operator of data processing system 101. In general, it will be to the advantage of the loan pool

traders if they base their bids and offers to trade at least partially on the statistics output to them in step 312. Otherwise, they are likely to be arbitrated by other entities that do.

For the purposes of this specification, a "pool of loans" is defined as comprising one or more loans. Advantageously, the offers to sell and the bids to purchase are based on the statistics output to the loan pool traders in step 312. Furthermore, the fees incurred by a loan pool trader for trading loans through data processing system 101 are advantageously considered by data processing system 101 in determining the price, timeliness, and completeness of the statistics offered to the loan pool trader in step 312.

At step 313, data processing system 101 receives an offer to sell one or more loans at an offering price from a loan pool trader. Advantageously, each offer either:

- 1) describes each loan in terms of its closing criteria, or
- 2) identifies each loan so that a potential bidder can retrieve the loan's closing criteria from closing criteria database 257.

In either case, this facilitates the sale of pools of heterogeneous loans by enabling each potential purchaser to evaluate the value of each loan in the pool by his or her own standards. Furthermore, the offering price quoted for each pool of loans is advantageously based on the statistics received by the loan pool trader in step 312.

At step 314, data processing system 101 compiles statistics on the pool of loans offered for sale in step 313. The statistics might include, but are not limited to:

- What is the total dollar volume of all of the pools of loans offered for sale?
- Any function of the offer to sell as a function of any other function — to answer questions such as "What is the lowest price offered for a pool of 100 home mortgage loans in New Jersey to borrowers who earn more than \$65,000 per year?"

It will be clear to those skilled in the art how to compile such statistics, which are stored in statistics database 253. Advantageously, the statistics are re-compiled each time a new offer is received to sell a pool of loans.

The statistics compiled at step 314 are stored in statistical database 253 in data storage device 203. Because the statistics stored in statistical database 253 are valuable, they can be sold or provided as described with respect to step 312.

At step 315, data processing system 101 receives an offer to buy one or more loans at a bid price from each of a plurality of loan pool traders. Advantageously, the bid to buy specifies the

minimum closing criteria for each loan and the bid price is based by the loan pool trader on the statistics received by the loan pool trader in step 312.

At step 316, data processing system 101 compiles statistics on the offers to buy received in step 315. The statistics might include, but are not limited to:

- Any function of the offer to buy as a function of any other function — to answer questions such as "What is the highest price offered for a pool of 100 home mortgage loans in New Jersey to borrowers who earn more than \$65,000 per year?"

It will be clear to those skilled in the art how to compile such statistics, which are stored in statistics database 253. Advantageously, the statistics are re-compiled each time a new offer is received to buy a pool of loans.

The statistics compiled at step 316 are stored in statistical database 253 in data storage device 203. Because the statistics stored in statistical database 253 are valuable, they can be sold or provided as described with respect to step 312.

At step 317, data processing system 101 compares each offer to sell a pool of loans to each offer to buy a pool of loans to identify, if possible, a match between a seller and a buyer.

At step 318, if a match between a seller and a buyer is found for a pool of loans, that fact is output from data processing system 101 to both the buyer and the seller so that the sale can be consummated.

At step 319, data processing system 101 compiles statistics on sale of the pool of loans in step 318. The statistics might include, but are not limited to:

- What is the total dollar volume of all of the loans sold in the last 24 hours?
- Any function of the sale to buy as a function of any other function — to answer questions such as "What is last price given for a pool of 100 home mortgage loans in New Jersey to borrowers who earn more than \$65,000 per year?"

It will be clear to those skilled in the art how to compile such statistics, which are stored in statistics database 253. Advantageously, the statistics are re-compiled each time a new sale is consummated.

The statistics compiled at step 316 are stored in statistical database 253 in data storage device 203. Because the statistics stored in statistical database 253 are valuable, they can be sold or provided as described with respect to step 312.

At step 320, data processing system 101 receives an indication of the fee incurred for brokering the sale of a pool of loans. Advantageously, the fee is incurred by both the buying and the

selling loan pool trader. In an alternative embodiment, the fee is incurred only from the selling loan pool trader. In an alternative embodiment, the fee is incurred by only the buying loan pool trader.

Advantageously, the fee is based on the dollar volume of the sale, and the indication of the fee incurred is stored in earned fee database 254 in data storage device 203. The fee information is valuable because it enables data processing system 101 to determine how to distribute the aggregate fees and the statistics in statistics database 253 among the various lenders, loan seekers, application processors, loan processors, and the owner of data processing system 101.

After step 320, control figuratively passes to step 301, although it will be clear to those skilled in the art that the steps in FIGs. 4 and 5 need not be performed in order. Rather, many of the steps are advantageously performed in parallel in response to the submissions of lending criteria, loan solicitations, offers to sell and offers to buy individual loans and pools of loans.

It is to be understood that the above-described embodiments are merely illustrative of the invention and that many variations can be devised by those skilled in the art without departing from the scope of the invention. It is therefore intended that such variations be included within the scope of the following claims and their equivalents.

What is claimed is:

1           1. A method comprising:  
2           receiving at a data processing system a lending criteria from each of a plurality of lenders;  
3           compiling a first set of statistics in said data processing system based on said lending criteria  
4           from each of said plurality of lenders; and  
5           outputting from said data processing system said first set of statistics to a first lender at a  
6           price that is based on a first measure of fees incurred with respect to said first lender.

1           2. The method of claim 1 wherein said price decreases as said first measure of fees increases  
2           within a given interval.

1           3. The method of claim 1 further comprising outputting from said data processing system an  
2           indicium that a portion of said first measure of fees is to be remitted to said first lender.

1           4. The method of claim 3 wherein said first measure of fees comprises fees incurred for  
2           lending through said data processing system and fees incurred for trading through said data  
3           processing system.

1           5. The method of claim 4 further comprising outputting from said data processing system an  
2           indicium that a first portion of said fees incurred for lending through said data processing system can  
3           be credited against said fees incurred for trading through said data processing system.

1           6. The method of claim 4 further comprising outputting from said data processing system an  
2           indicium that a first portion of said fees incurred for trading through said data processing system can  
3           be credited against said fees incurred for lending through said data processing system.

1           7. The method of claim 1 further comprising:  
2           receiving at said data processing system a loan solicitation from each of a plurality of loan  
3           seekers;  
4           compiling a second set of statistics in said data processing system based on said loan  
5           solicitations from each of said loan seekers; and  
6           outputting from said data processing system said second set of statistics to said first lender.

1           8. The method of claim 1 further comprising receiving at said data processing system an  
2           offer to sell at least one loan from a loan pool trader.

1           9. The method of claim 1 further comprising receiving at said data processing system an bid  
2           to buy at least one loan from a loan pool trader.

1           10. The method of claim 1 further comprising the steps of:

receiving at said data processing system an offer to sell at least one loan from a first loan pool trader; and

receiving at said data processing system an bid to buy said at least one loan from a second loan pool trader.

**11. A method comprising:**

receiving at a data processing system an offer to sell at least one loan from each of a plurality of loan pool traders;

compiling a first set of statistics in said data processing system based on said at least one loan from each of said plurality of loan pool traders; and

outputting from said data processing system said first set of statistics to a first loan pool trader at a price that is based on a first measure of fees incurred with respect to said first loan pool trader.

**12.** The method of claim 11 wherein said price decreases as said first measure of fees increases within a given interval.

**13.** The method of claim 11 further comprising outputting from said data processing system an indicium that a portion of said measure of fees is to be remitted to said first loan pool trader.

**14.** The method of claim 11 wherein said first measure of fees comprises fees incurred for lending through said data processing system and fees incurred for trading through said data processing system.

**15.** The method of claim 11 further comprising outputting from said data processing system an indicium that a first portion of said fees incurred for lending through said data processing system can be credited against said fees incurred for trading through said data processing system.

**16.** The method of claim 11 further comprising outputting from said data processing system an indicium that a first portion of said fees incurred for trading through said data processing system can be credited against said fees incurred for lending through said data processing system.

**17. A method comprising:**

receiving at a data processing system an offer to buy at least one loan from each of a plurality of loan pool traders;

compiling a first set of statistics in said data processing system based on said at least one loan from each of said plurality of loan pool traders; and

6 outputting from said data processing system said first set of statistics to a first loan pool  
7 trader at a price that is based on a first measure of fees incurred with respect to said first loan pool  
8 trader.

1 18. The method of claim 17 wherein said price decreases as said first measure of fees  
2 increases within a given interval.

1 19. The method of claim 17 further comprising outputting from said data processing system  
2 an indicium that a portion of said measure of fees is to be remitted to said first loan pool trader.

1 20. The method of claim 19 wherein said first measure of fees comprises fees incurred for  
2 lending through said data processing system and fees incurred for trading through said data  
3 processing system.

1 21. The method of claim 17 further comprising outputting from said data processing system  
2 an indicium that a first portion of said fees incurred for lending through said data processing system  
3 can be credited against said fees incurred for trading through said data processing system.

1 22. The method of claim 21 further comprising outputting from said data processing system  
2 an indicium that a first portion of said fees incurred for trading through said data processing system  
3 can be credited against said fees incurred for lending through said data processing system.

1 23. A method comprising:  
2 receiving at a data processing system a lending criteria from each of a plurality of lenders;  
3 compiling statistics in said data processing system based on said lending criteria from each of  
4 said plurality of lenders;  
5 outputting from said data processing system said statistics to a first loan pool trader; and  
6 receiving at said data processing system from said first loan pool trader an offer to sell at least  
7 one loan.

1 24. The method of claim 23 further comprising:  
2 receiving at said data processing system a loan solicitation from an loan seeker;  
3 comparing in said data processing system said loan solicitation to said lending criteria from  
4 each of said plurality of lenders to identify a first lender; and  
5 outputting from said data processing system an indicium of the identity of said loan seeker to  
6 said lender.



1           **25.** The method of claim 23 further comprising receiving at said data processing system an  
2 indicium that a fee has been incurred with respect to transactions involving said first lender.

1           **26.** The method of claim 23 further comprising the steps of:  
2           receiving at said data processing system an offer to buy said at least one loan from each of a  
3 plurality of loan pool traders; and  
4           comparing in said data processing system said offer to sell said at least one loan to said offers  
5 to buy said at least one loan to identify a second loan pool trader.

1           **27.** The method of claim 26 further comprising outputting from said data processing system  
2 an indicium of said second loan pool trader to said first loan pool trader.

1           **28.** The method of claim 26 further comprising earning a fee from said first loan pool trader  
2 for brokering the sale of said at least one loan to said first loan pool trader.

1           **29.** A method comprising:  
2           receiving at a data processing system an offer to sell at least one loan from each of a plurality  
3 of loan pool traders;  
4           compiling a first set of statistics in said data processing system based on said at least one loan  
5 from each of said plurality of loan pool traders;  
6           outputting from said data processing system said first set of statistics to a lender; and  
7           receiving at said data processing system a lending criteria from said lender.

1           **30.** The method of claim 29 wherein said lending criteria is based on said first set of  
2 statistics.

1           **31.** A method comprising:  
2           receiving at a data processing system a lending criteria from each of a plurality of lenders;  
3           receiving at said data processing system a loan solicitation from an loan seeker;  
4           comparing in said data processing system said loan solicitation to said lending criteria from  
5 each of said plurality of lenders to identify a first lender; and  
6           receiving at said data processing system an indicium that a fee has been incurred with respect  
7 to transactions involving said first lender.

1           **32.** The method of claim 31 further comprising the steps of:  
2           compiling statistics in said data processing system based on said lending criteria from each of  
3 said plurality of lenders;

4 outputting from said data processing system said statistics to said first lender;  
5 wherein a price is charged for outputting said statistics to said first lender that is based on said  
6 measure of fees incurred with respect to transactions involving said first lender within a given  
7 interval.

1 **33.** The method of claim 31 further comprising outputting from said data processing system  
2 an indicium of a portion of said fee that is to be remitted back to said first lender;  
3 wherein said portion of said fee is based on said measure of fees incurred with respect to  
4 transactions involving said first lender within a given interval.

1 **34.** The method of claim 31 further comprising the steps of:  
2 compiling statistics in said data processing system based on said lending criteria from each of  
3 said plurality of lenders;  
4 outputting from said data processing system said statistics to a loan pool trader; and  
5 receiving at said data processing system from said loan pool trader a bid to buy at least one  
6 loan, wherein said bid is based on said statistics and each loan in said at least one loan is described in  
7 terms of its closing criteria.

1 **35.** A method comprising:  
2 receiving at a data processing system a lending criteria from a lender; and  
3 outputting from said data processing system an indicium that a first portion of a first measure  
4 of fees incurred with respect to said lender for lending through said data processing system can be  
5 credited against a second measure of fees incurred by said lender for trading at least one loan through  
6 said data processing system.

1 **36.** The method of claim 35 further comprising outputting from said data processing system  
2 an indicium that a second portion of said second measure of fees can be credited against said first  
3 measure of fees.

1 **37.** A method comprising:  
2 receiving at a data processing system an offer to sell at least one loan from a loan pool trader;  
3 and  
4 outputting from said data processing system an indicium that a first portion of a first measure  
5 of fees incurred with respect to said loan pool trader for trading loans through said data processing  
6 system can be credited against a second measure of fees incurred by said loan pool trader for lending  
7 through said data processing system.

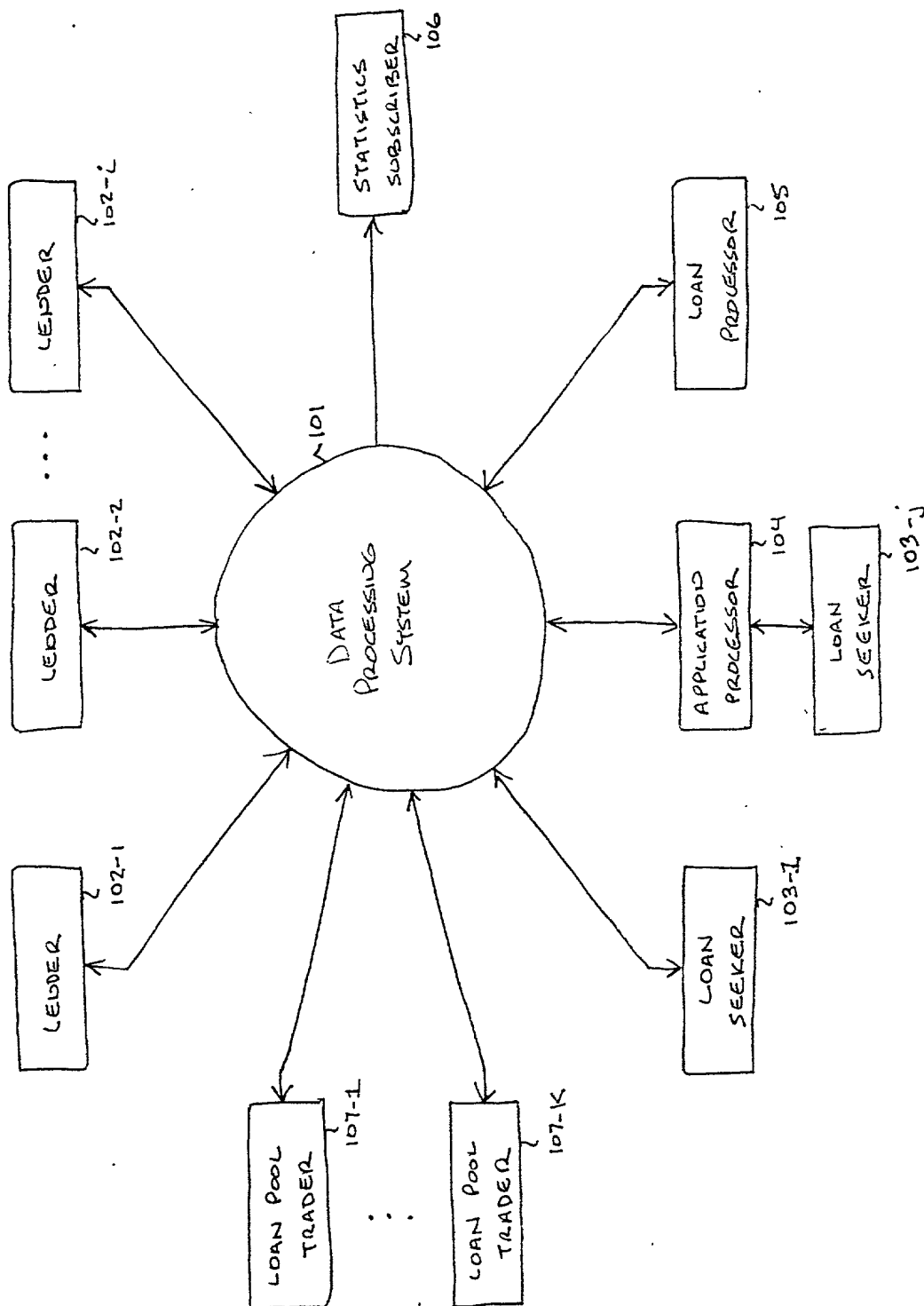
- 1           **38.** The method of claim 37 further comprising outputting from said data processing system
- 2 an indicium that a second portion of said second measure of fees can be credited against said first
- 3 measure of fees.

**Abstract**

1           A data processing system is disclosed that provides an efficient market for: (1) the provision  
2 of loans and lines of credit between lenders and those seeking loans and lines of credit, and (2) the  
3 sale of loans between loan pool traders. In particular, the data processing system provides an efficient  
4 market for the provisioning of loans and lines of credit that not only invites lenders, loan seekers, and  
5 loan pool traders to patronize the system, but whose conventions induce them to patronize the system.  
6 An embodiment of the present invention comprises: receiving at a data processing system a lending  
7 criteria from each of a plurality of lenders; compiling a first set of statistics in the data processing  
8 system based on the lending criteria from each of the plurality of lenders; and outputting from the  
9 data processing system the first set of statistics to a first lender at a price that is based on a measure of  
10 fees incurred with respect to the first lender.

M.D. ERLANGER 3

Fig. 1.





66-2000-030660

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Fig. 2

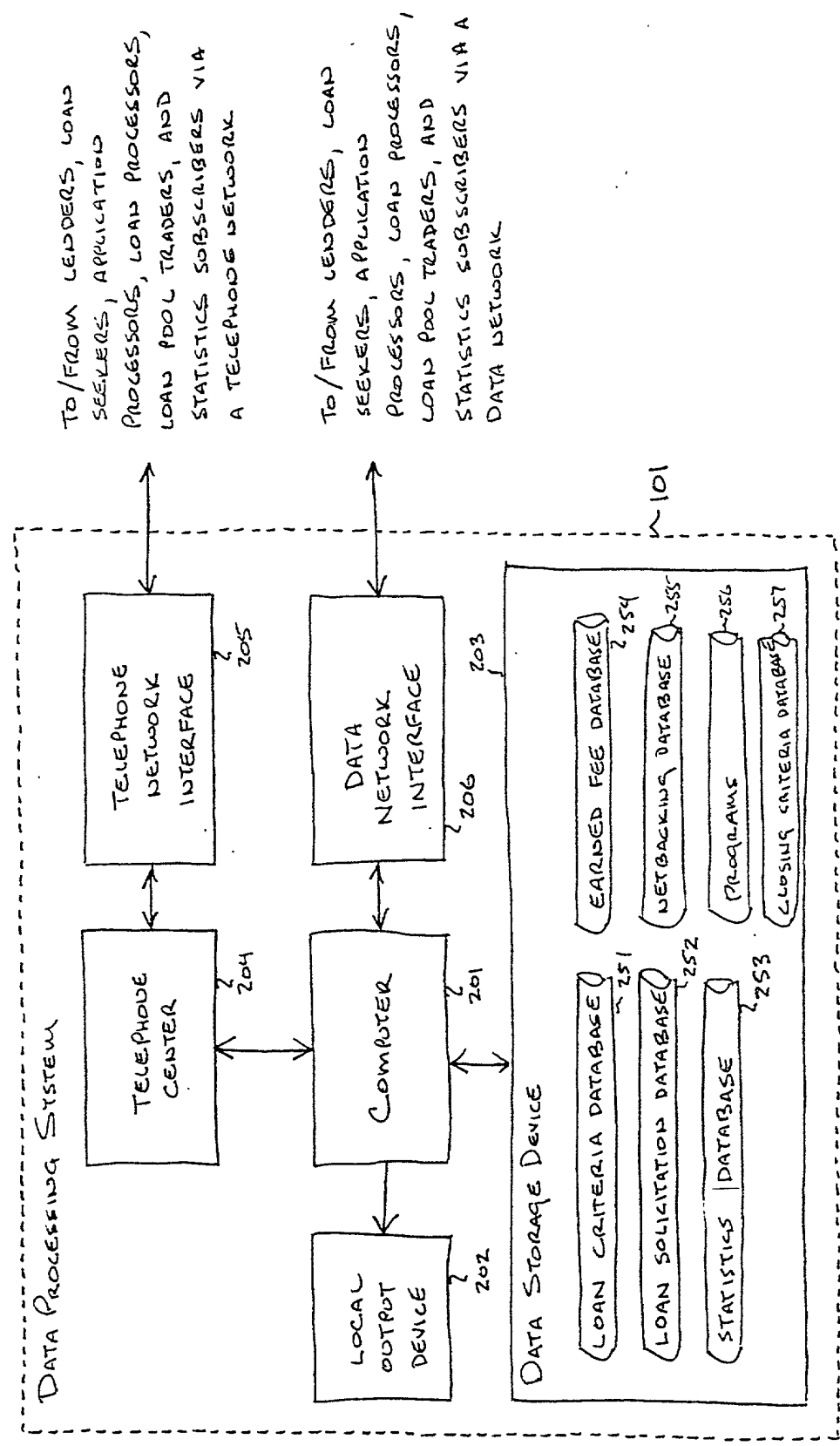


Fig. 3

Fig. 4

Fig. 5

FIG. 4

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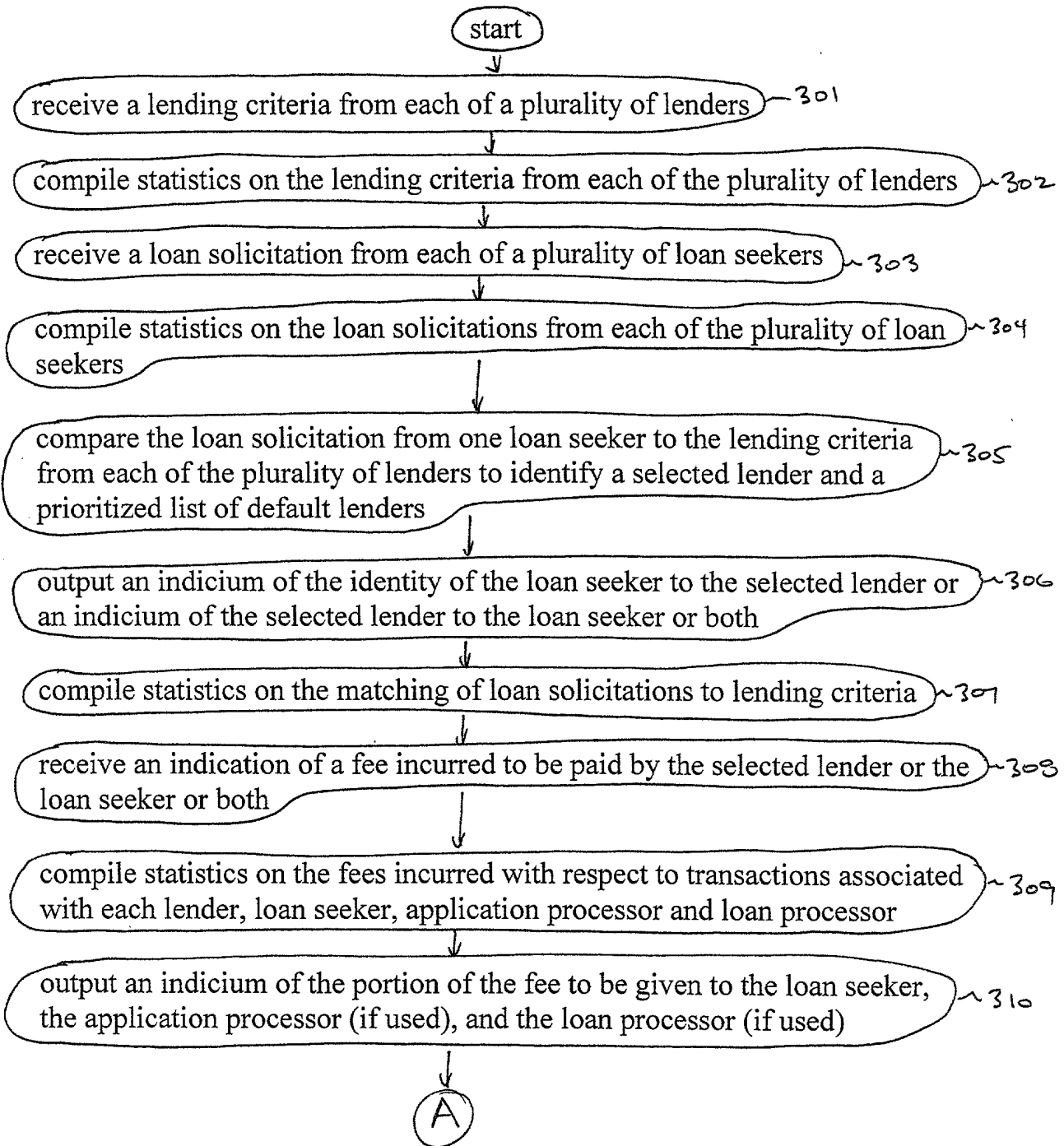
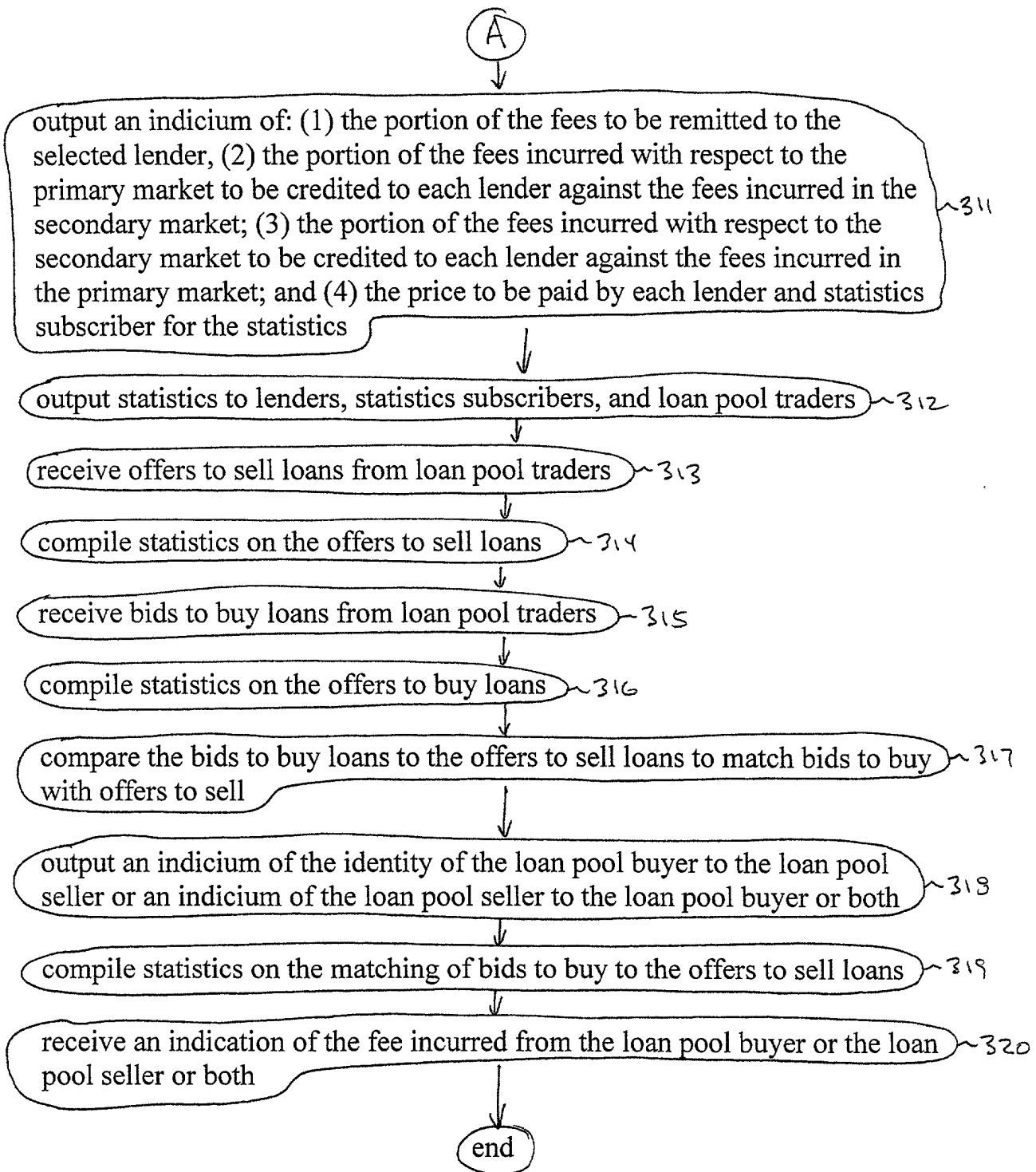




FIG. 5

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IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

Declaration and Power of Attorney

As the below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled **A Data Processing System For Providing An Efficient Market For Loans And Lines Of Credit** the specification of which is attached.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by an amendment, if any, specifically referred to in this oath or declaration.

I acknowledge the duty to disclose all information known to me which is material to patentability as defined in Title 37, Code of Federal Regulations, 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

None

I hereby claim the benefit under Title 35, United States Code, 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, 112, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

U.S. Application Serial No. 09/178,400	Filed October 24, 1998
U.S. Application Serial No. 09/296,573	Filed April 22, 1999

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

M.D. Erlanger 1

I hereby appoint the following attorneys with full power of substitution and revocation, to prosecute said application, to make alterations and amendments therein, to receive the patent, and to transact all business in the Patent and Trademark Office connected therewith:

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Reg. No. 38,089

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Inventor's signature

Date

8/7/99

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